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SUMMARIES

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HIV-1 TAK RNA HINDING PROTEIN
Fatcht: Wo 9426890-A 6 24-NOV-1994;
ISIS INNOVATION (GB)
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Sequence 6 from Patent W09426890
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Ecker,D.J., Bruice,T.W. and Vickers,T.A.
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              l (bases 1 to 29)
Ecker, D.J., Vickers, T. and Davis, P. Ecker, D.J., Vickers, D. Ecker, D.J., Vickers, D. Ecker, D.J., Vickers, D. Ecker, D. Ecke
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Sequence 20 from patent US 5527894.
122471 GT:1602825
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Gold,L.M. and Tuerk,C.
Ligands of HIV-1 tat protein
Patent: US 5527894-A 20 18-JUN-1996;
                                                                                                                                                               Unknown
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Methods and kits for discovery of rna-binding Patent: WO 9964625-A 5 16-DEC-1999;
RIBOTARGETS LIMITED (GB)
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Human immunodeficiency virus
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Vickers,T. and Davis,P.
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Sequence 8 from patent US
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Sequence 1 from Patent W09426890.
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Cook, P.Dan., Ecker, D.J., Wyatt, J., Bruice, T.W.,
Hanecok, R., Vickers, T., Davis, P., Freier, S.M.,
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Braddock,M. and Vives,E.
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23: //SIDSI/qcqdata/geneseq/qeneseqn-embl/NA2000.BAT: *
24: //SIDSI/qcqdata/geneseq/qeneseqn-embl/NA2000.BAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1736436 seqs, 858457221 residues
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Copyright (c) 1993 - 2002 Compugen Etd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Geneseq_032802;*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Query Match Length DB	ID	Description
_	26.6	98.5	27 16	6 AA079607	Wild type HIV-1 T/
2	26.6	98.5	27 1	_	HIV-1 TAR bulge s
Ų	26.6	98.5	27 1	19 AAV20694	Oligonucleotide SE
4	26.6	98.5		20 AAX05663	HIV-1 oligonucle
Ų.	26.6	98.5	_	12 AAQ14054	TAR mimetic oliq
6	26.6	98.5	_		Sequence of HIV
7	26.6	98.5	29 1	19 AAV20678	TAR mimetic oligon
30	26.6	98.5	_	19 AAV06748	Human immunodefici
5	26.6	98.5	29 2	0 AAX05661	HIV-1 TAR mimetic

2	2	43 26	2	ν.	2	2	2	2	2	2	2	Z.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
.6 98.	. 6 98.	. 6 98.5	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 48.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.	.6 98.
0 1	22	92 2	2 2	1 2	4	2	2 1	2 1	9 2	2	9 2	9 2	9 2	9 1	9 1	8 2	8 1	8 1	8 .1	2 1	0 2	0 1	3 1	نيا	1 2	1 1	1	1 1	1 1	1	1	1 1	-1	1 1	9
E806NVV	AAV8149	AS138	AAS1388	AAZ5587	AAQ1253	AAZ3937	AAT89	AAQ4143	AAV8150	AAX0565	AAX3232	AAX3232	AAX8804	AAV2068	AAQ1405	AAX0566	AAV2067	AAX5973	AAQ441	AAT9588	AAX0565	AAV2069	AAV0669	AAV0669	AAA499	AAV0667	AAV0669	AAV0668	AAQ7960	AAQ48	AAQ4892	AAQ4892	892	4 AAQ48915	1 AAZ59074
i -R gene cons	HIV-1 TAR dsDNA te	avirus	rus KNAl	➣	-1 5' UTR inc		mmunode	ld type HIV	HIV-1 RNA TAR sequ	TAR mimet i	do Tar-2 tor	go Tar-1 for	lerivec	mimetic oli	TAR mimetic oliqua	HIV-1 TAR mimetic	acental	of the	nce of the T	petitor of 4	TAR mimet i	mimetic	-1 TAR el	TAR elemen	sactivat	ified c	V-l TAR elemer	donucleotide (ild type HIV-l		2	s-linking	္	ng ol	HIV-1 TAR oligonuc

ALIGNMENTS

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RESULT 1	LT 1 9607	
Y ID	AA079607 standard: RNA: 27	lard; RNA; 27 BP.
; >	*********	
×	AAQ/900/;	
TU	17-AUG-1995 ((first entry)
XX		
X Y	Wild type HIV-1 TAR.	1 TAR.
X	Wild type HIV-	1 TAR; TAT target sequence; binding protein BBP;
X	HIV replication	HIV replication inhibitors; human immunodeficiency virus type
XX		
SO	Human immunode	Human immunodeficiency virus type 1.
XX		
FH	Key	Location/Qualitiers
FT	stem_loop	127
7		/*taq⊹ a
FT	misc_feature	68
FT		/*taq- b
FT		/label= tri-pyrimidine bulge
XX		
X Z	W09426890-A.	
Qd	24-NOV-1994.	
×		
Y 7	10-MAY-1994;	94W0=6801061.
PR	18-MAY-1993;	93GB-0010227.
PΑ	(ISIS-) ISIS I	INNOVATION LTD.
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RESULT 2
AAQ79610
1D AAQ7
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Best Local S
Matches 26
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                                                                             HIV-1 TAR RNA binding protein, BBP -
                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                    HIV-1 TAR bulge substitution 23 mutant; TAT target sequence;
binding protein BBP; HIV replication inhibitors;
                                                                                                                                                                                                                                                                                                                                                                                                                   BIV 1 TAR bulge substitution 23 (BS23) mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAR binding protein binding to TAR, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 5A; 34pp; English.
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AAQ79610 describes the sequence of the HIV-1 TAR bulge substitution 23 (U23 to G23) mutant. The wild type TAR is the HIV-1 replication initiation protein (TAT) target sequence. A new HIV-1 TAR binding
                                            Disclosure: Fig 5A; 34pp; English.
                                                                    retroviral
                                                                                                                                     Blanchard A,
                                                                                                                                                                                                                                                   W09426890-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAQ79610 standard; RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 replication initiation protein (TAT) target sequence. A new HIV-1 TAR binding protein BBP is claimed, this protein prevents TAT binding to TAR, and is therefore an effective inhibitor of HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                retrovital
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Muckenthaler
                                                                                                                          Muckenthaler
                                                                                                                                                           (ISIS) (SISI)
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                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                        human immunodeficiency virus type 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ79610;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ79607 describes the wild type HIV-1 TAR sequence, the HIV-1
                                                                                                                                                                                 18 - MAY - 1993;
                                                                                                                                                                                                       18 MAY 1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                          18 AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CCAGAUCIJGAGCSUGGGGAGCUCUCUGG 27
                                                                                                   1995-022281/03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RNA binding protein, BBP - useful for treating linfections including HTV-1
                                                                   intections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3.
                                                                                                                          Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Braddock M,
M, Vives E;
                                                                                                                                                           INNOVATION LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                          (tirst entry)
                                                                                                                                     Braddock
                                                                                                                                                                                 93GB-0010227
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                                                                                                                                                                                                                                                                                                                             Location/Qualitiers
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96.3%;
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                                                                   including HIV-1
                                                                                                                          27
                                                                                                                                                                                                                                                                       tri-pyrimidine bulge
                                                                                                                                    Kingsman
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 26.6;
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                                                                              useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   other:
                                                                                                                                     Kingsman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kingsman
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RESULT 3
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                                                                                                                                                                                    Query Match
Best Local Similarity
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                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-JUN-1991;
21-MAR-1990;
19 MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                             and (3) contacting the virus with ON or its analogue comprising 6-50 and a sequence selected from the group consisting of (111), (1V) and 5'-CUCCGA-' (1) 5'-CUCCGA-' (1) 5'-UCCGA-' (1) 5'-UCCGA-' (1) 5'-NUCCUN 3' (11) 5'-NUCCUN 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein BBP is claimed, this protein prevents TAT binding to TAR and is therefore an effective inhibitor of HIV replication.
                                                                                                                                                                                                                                                                                           Sequence 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 replication in vitro comprising: (1) contacting the virus with an oligonucleotide (ON) or its analogue comprising the sequence (1); (2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotide SEQ ID NO:11 from US5736294
                                                                                                                                                                                                                                                                                                                                                                                                          used to provide compositions and therapies for human diseases, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contacting the virus with ON or its analogue comprising the sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes methods for interfering with HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is shown in the disclosure of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Column 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Inhibition of HIV replication in vitro – comprises contacting virus with RNA oligo:nucleotide or its analogue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bruice TW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1818) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-APK-1998
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                                      CCAGAUCUGAGCSUGGGAGCUCUCUGG 27
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CCAGAUCUGAGCCUGGGAGCUCUCUGG
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immunodeficiency virus;
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                                                                                                                                                                                                                                                                                                                                                                            retroviral infections.
                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                   BP; 4 A; 8 C; 9 G; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ecker DJ,
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91WO-US01822
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                                                                                                                                                                                    96.3%;
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                                                                                                                                                                                                                          98.5%;
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                                                                                                                                                 <del>. .</del>
                                                                                                                                                                                        Score 26.6;
Pred. No. 0
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mimetic;
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AC AAXU
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XX HIV-
XX Huma
KW Gene
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RESULT 5
AAQ14054
ID AAQ1
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21-MAR-1990;
16-SEP-1992;
                                                                                                                                                                                                                                                     structures important for RNA/protein interactions. The interaction of proteins with minic molecules minimises the interactions of proteins with regulatory RNA. The oligonucleotides are useful for regulating/modifying gene expression and can be used in therapeutics for the treatment of viral and retroviral infections such as acquired themunodeficiency syndrome (ALDS). The oligonucleotides are also useful immunodeficiency syndrome (ALDS). The oligonucleotides are also useful
                                                                                                                                                                                                                                                                                                                             that are able to mimic the secondary or tertiary structure of RNA molecules, especially mRNA. It provides specific oliqonucleotides (AXX5657-661) which mimic the human immunodeficiency virus (HIV) transacting responsive element (TAR). The RNA mimicry oliqonucleotides mimic particular strands of RNA, especially mRNA, containing secondary
  07-JAN-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              acquired immunodeficiency syndrome; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus; HIV; trans-acting responsive element; gene expression; viral; retroviral; infection; AIDS; mimetic; TAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV-1 oligonucleotide analog sequence
                                               AAQ14054 standard; DNA; 29
                                                                                                                                                                                                  Sequence 27 BP; 4 A; 8 C; 9 C; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to defined oligonucleotides (or their analogues)
                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Column 9-10; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                      New oligonucleotides for modulating gene expression by RNA mimicry useful for treating viral and retroviral diseases such as AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MPI: 1999-180068/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bruice TW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
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                        AAQ14054;
                                                                                                                                                                                                                         sequence represents an oligonuclectide analog sequence that is used during the course of the invention.
                                                                                                                                                                                                                                               as probes in diagnostic and research reagents, and kits.
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                                                                                                      1 CCAGAUCUGAGCCUGGGAGCUCUCUGG
                                                                                                                                                     Conservative
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(first entry)
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90US-0497090.
92US-0927505.
95US-0461418.
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                                                                                                                                                                98.5%;
96.3%;
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                                                                                                                                                    1; Mismatches
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                               Vickers T,
                                          Anderson K,
                                                                                          23-AUG-1991;
                                                                                                                                                               W09304204-A
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Matches 26; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This 2'-O-methyl oligonucleotide analogue has significant activity in inhibition of HIV gene expression. It mimics the TAR sequence which is a transcription regulator of HIV. See AAQ14053 6.
WPI; 1993-094029/11
                                                                                                                                                                                                                                                                                                                      Human Immunodeficiency Virus
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence of HIV TAR element.
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                                                                                                      (ISIS-) ISIS PHARM INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 47; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bruice TW,
                                       Wyatt J;
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                                                                                                                                                                                                                                                                                                                                                        HIV; diagnosis; research;
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                                                              Bruice
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                                                                                                                                                                                                                                                                                                                                                                                  target molecule; binding activity; therapy;
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96.3%;
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Pred. No. 0.026;
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                                                                                                                                                                               modified_base
                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transcriptional activation protein tat. Set 3 was found to bind
best to TAR. Set 2 caused a shift of approx. 25% of the target.
Sets 1 and 4 caused a minimal shift of the target.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The HLV TAR element is a structured RNA tound on the 5' end of a HLV transcripts. A gel shift was used to analyse the binding of tour oligo sets (AAO)7866-9) to the HLV TAR element. The target has a three base buige that is required for binding of the
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                                                                                                                                                                                                                                                                                                      TAR mimetic oligonucleotide SEQ ID NO:5.
                                                                                                                                                                                                                                                                                                                                                                                        placental alkaline phosphatase; PAP; gene expression;
immunodeficiency virus; HIV; TAR; mimetic; ss.
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"2'-0-methyladenosine"
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"2'-0-methyladenosine"
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RESULT 8
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Matches 2
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21-MAR-1990;
19-MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is used in an example of the present invention. The present invention describes methods for interfering with HIV replication in vitro comprising: (1) contacting the virus with an oligonucleotide (ON) or its analogue comprising the sequence (I); (2) contacting the virus with ON or its analogue comprising the sequence (II), and (3) contacting the virus with ON or its analogue comprising 6-50 nt and a sequence selected from the group consisting of (III), (IV) and (V): 5'-CUGGGA-3' (I) 5'-UCUGAGCCUGGGAGCUC-3' (II) 5'-NNUCUNN-3' (IV) 8'-NNUCUNN-3' (IV) 8'-NNUCU
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified_base
                                                                                                                                          Ras stem/loop; oligonucleotide synthesis; unrandomisation;
triple strand; HIV TAR element; endothelin-1; biotin;
                                                                                                                                                                                                                                                        AAV06748
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                  16 - DEC - 1997
                                                 US5698391-A
                                                                           Human immunodeficiency virus type 1.
                                                                                             Synthetic
                                                                                                                                                                                         Human immunodeficiency virus TAR element
                                                                                                                                                                                                                        27-MAY-1998
                                                                                                                                                                                                                                                                                       AAV06748 standard; RNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 29 BP; 4 A; 9 C; 10 G; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; Column 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inhibition of HIV replication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bruice TW, Ecker DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                                1 CCAGAUCUGAGCSUGGGAGCUCUCUGG
                                                                                                                                                                                                                                                                                                                                                                 CCAGAUCUGAGCCUGGGAGCUCUCUGG 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RNA oligo:nucleotide or its analogue
                                                                                                                           immunodeficiency virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            provide compositions and therapies for human diseases, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             retroviral intections.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PHARM INC
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90US-0497090
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29
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/note= "2'-0-methyl cytidin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= ac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                98.5%;
96.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "2'-0-methylquanosine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                       <del>4</del>8
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                                                                                                                                                                                                                                                                                                                                                                                                                               1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 26.6; DB Pred. No. 0.026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in vitro - comprises contacting virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                               29;
                                                                                                                                                       HIV gag-pol
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                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                                                                                                               AAX05661
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                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
              23-FEB-1999
                                              US5874564-A
                                                                                                                         acquired
                                                                                                                                                                                                                       23-APR-1999
                                                                                                                                                                                                                                                                                    AAX05661 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           controlled fashion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            element.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 39; Figure 5A; 37pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthesis and selection of oliqumers -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-051483/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vickers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Davis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anderson K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-FEB-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-DEC-1994;
                                                                         Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                 2 CCAGAUCUGAGCCUGGGAGCUCUCUGG 28
                                                                                                                                                                                                                                                                                                                                                                                              1 CCAGAUCUGAGCSUGGGAGCUCUCUGG
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                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brown-driver V,
                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91US-0749000
94US-0196103
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                                                                                                                                                                                                                                                                                    RNA:
                                                                                                                                                                                                                                                                                                                                                                                                                                            98.5%;
96.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Freiersm,
                                                                                                                                                                                                                                                                                    29
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 26.6;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bruice TW,
                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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the further group having in the previously defined common position the nucleotide appearing in that position in the set selected in step (c), and having in an additional defined common position a different which are not in a defined common position being randomised; (e) assaying each of the sets of the further group for the assayable activity; (f) selecting the set of the further group having the highest assayable activity and (g) repeating steps (d) to (f) until an oligonucleotide having the assayable activity for the target molecule is determined. The methods can be applied to any molecules that can be oligonerised in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      are not in the common position being randomised: (b) assaying each of sets for activity against the target molecule; (c) selecting the set having the highest activity; (d) preparing a further group of sets of oligonucleotides of the substantially same length, each of the sets of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligonucleotide having an assayable activity for a target molecule. It comprises: (a) preparing a group of sets of oligonucleotides of substantially the same length, each oligonucleotide comprising at least
Human immunodeficiency virus; HIV; trans-acting responsive gene expression; viral; retroviral; infection; AIDS; mimet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 nucleotides by defining a common position in the oligonucleotides of
the sets, and synthesising the sets of oligonucleotides so that each set
has a different nucleotide in the common position, the nucleotides which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 29 BP; 4 A; 9 C; 10 G; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence represents the human immunodeficiency virus (HIV) TAN
                                                                                                                                   TAR mimetic oligonucleotide 2'-OMe delTAR #2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a method for determining an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hanecak R,
intection; AIDS; mimetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0.026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          especially oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cook PD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sanghyi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
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RESULT 10
AAZ59074
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21 MAR 1990;
16 SEP 1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to defined oligonucleotides (or their analogues) that are able to mimic the secondary or tertiary structure of RNA molecules, especially mRNA. It provides specific oligonucleotides (AAX05657-661) which mimic the human immunodeficiency virus (HIV) transacting responsive element (TRK). The RNA mimicry oligonucleotides mimic particular strands of RNA, especially mRNA, containing secondary structures important for RNA/protein interactions. The interaction of
                                                                                                          modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunodeticiency syndrome (AIDS). The oligonucleotides are also useful as probes in diagnostic and research reagents, and kits. The present sequence represents a specifically claimed TAR mimotic oligo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             with regulatory RNA. The oligonucleotides are useful for regulating/modifying gene expression and can be used in therapeuties for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 14; Column 26; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New oligonucleotides for modulating gene expression by RNA mimicry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WP1; 1999-180068/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS ) ISIS PHARM INC
                                                                                                                                                                      modified_base
                                                                                                                                                                                                                                                     autoimmune disease; trans-activation regulatory region;
                                                                                                                                                                                                                                                                                                                HIV-1 TAK oligonucleotide target seguence #5.
                                                                                                                                                                                                                                                                                                                                                11 APR - 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 29 BP; 4 A; 9 C; 10 G; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treatment of viral and retroviral infections such as acquired
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    useful for treating viral and retroviral diseases such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bruice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05 JUN-1995;
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                               W09964625-A2
                                                                                                                                                                                        Koy
                                                                                                                                                                                                                    Human immunodeticiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                 AAZ59074;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proteins with mimic molecules minimises the interactions of proteins
16 - DEC - 1999
                                                                                                                                                                                                                                                                  Antiviral; antibacterial; antitungal; anticancer; detection; TAR; RRE;
fluorescence resonance energy transfer; tat; HTV-1; Rev response element;
                                                                                                                                                                                                                                                                                                                                                                                                             AAZ59074 standard; RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ψ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ecker DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                (tirst entry)
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92US-0927505.
95US-0461418.
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                                                                                                           5,7
                                                                                                                                                                                     Location/Qualitiers
                                                                                                                                         /note-
                                                                                                                                                         /*t.aq
                                                                                             /*! aq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98.5%;
96.3%;
                                                                            "optionally labelled with DBACYL
                                                                                                                        "optionally labelled with 6-carboxythuorescein or indodicarbocyanine-3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vickers
                                                                                                                                                                                                                                                                                                                                                                                                              29
                                                            (4-((dimethylamino)phenyl)azo)benzoic acid)*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 26.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No. 0.026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 29;
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RESULT 11
AAQ48915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Z
     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complementary donor or acceptor group, and measuring the fluorescence from fluorescent groups associated with a compound:target MNA complex in presence of the test compound and comparing the result with a standard.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               thuorescence resonance energy transfer (FRET). The method is used to identify compounds that interfere with interaction between the target KNA and ligands or proteins. Compounds that are identified are potentially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This oliqunucleotide self-anneal to form a double stranded oliqunucleotide containing the HIV-1 trans-activation regulatory region (TAR) to which the HIV-1 Tat protein binds. The complex is labelled with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a method of determining if a compound binds to a target RNA by treating a test compound with a reporter (R) labelled with a donor or acceptor group and labelled target RNA, labelled with the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Identifying compounds that bind to target RNA, potentially useful for treating infections, tumors and autoimmune diseases % \left( 1\right) =\left\{ 1\right\} =
misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ48915 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    useful for treating infections (viral, bacterial or funcal), cancer and antoimmune diseases. The compounds are preferably directed to the TAR and RRE regions of human immunodeficiency virus RNA and inhibit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6-carboxytluorescein (FAM), indodicarbocyanine-3 (Cy-3) or DHACYL (4-((dimethylamino)phenyl)azo)benzoic acid)and is used as a target for the binding of a labelled ADP-1 protein. Detection of the complex is by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Karn J. Prescott (D)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUN-1999;
                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Crosslink; ON;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cross-linking oligonucleotide 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 29 BP; 4 A; 9 C; 10 C; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              viral replication.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Examples; Page 32; 82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (RIBO-) KIBOTARGETS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           interior loop;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 CCAGAUCUGAGCCUGGGAGCUCUCUGG 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CCAGAUCHGAGCSUGGGAGCUCUCUGG 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bulge: fixation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligonucleotide; hairpin loop; stem loop;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99GB-0004790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-GB01761
                                                                                                                                                                                                                      /not e-
                                                 /mod_base= 2'=0-(octylhydrazine)_quanosine
/note= "ret: example 4-A"
                                                                                                                                                                                                                                                                   /mod_base= 2′-0-(octylhydrazine)_uridine
/note= "ret: example 4-A"
                                                                                                                                                                                                                                                                                                                                                                                 /*! aq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                               /*taq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96.3%;
                                                                                                                                                                                                                                                                                                                                                                                 <u>c</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>بد</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ŧ

    Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 0.026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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AAQ48920
                                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                     separate ON strands in duplex structures or to fix a single ON strand in a hairpin loop, stem loop, interior loop, bulge or other similar higher-order structures. Fixing a strand or strands in a duplex structure also can disrupt the normal function of a single stranded nucleic acid-binding protein by forming nuclease resistant mimics of the protein binding receptors. The ONS have diagnostic, therapeutic and prophylactic applications as well as
                                                                                                                                                                                                                                                                                                                                                                                                                                                 New covalently crosslinked oligo-nucleotide(s) - used to fix duplex structures or hairpin loop, stem loop, interior loop,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure: Page 67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bruice T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ISIS ) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09318052-A
                                               modified_base
                                                                                                         Synthetic
                                                                                                                                                 Cross-linking oligonucleotide
                                                                                                                                                                                                                                                                                                              Sequence 31
                                                                                                                                                                                                                                                                                                                                                                                                                                          bulge or other structures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1993
      misc_binding
                                                                                 modified_base
                                                                                          Keγ
                                                                                                                         interior loop;
                                                                                                                                  Crosslink; ON;
                                                                                                                                                                   16-MAR-1994
                                                                                                                                                                                    AAQ48920
                                                                                                                                                                                                   AAQ48920 standard; DNA; 31
                                                                                                                                                                                                                                                                                                                               being used as research agents.
                                                                                                                                                                                                                                                                                                                                                                                                 A number of
                                                                                                                                                                                                                                              نین
                                                                                                                                                                                                                                                             1 CCAGAUCUGAGCSUGGGAGCUCUCUGG 27
                                                                                                                                                                                                                                             CCAGAUCUGAGCCUGGGAGCUCUCUGG
                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                          (AAQ48905:28) consist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cook PD,
                                                                                                                                                                                                                                                                                                               BР;
                                                                                                                                                                                                                                                                                                                                                                                               AAQ48905 28) consist of novel crosslinked oligo-nucleotides. crosslinking methods are claimed, which are used to fix
                                                                                                                                                                  (first entry)
                                                                                                                         oligonucleotide;
bulge; fixation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92US-0846376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93WO-US02059
                                                                                                                                                                                                                                                                                                               5 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note-
      /note: "ref: example 4-A"
                                                                                  Location/Qualifiers
                       /mod_base- 2'-0-(pentylamino)_adenosine
/note= "ref: example 4-A"
                                                                         /*tag
                                                                                                                                                                                                                                                                                     98.5%;
96.3%;
                                                                                                                                                                                                                                                                                                              9 C; 10 G; 0 T; 7
                                                                                                                                                                                                                                                                                                                                                                                                                        145pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "erosslinked to base 19 of
a homobifunctional linker
                                                      "ret: example
                                                                         ىن
                                                                                                                                                                                                    98
                                                                                                                                                                                                                                                                             Score 26.6; D
Pred. No. 0.02
1; Mismatches
                                                                                                                                                   16.
                                                                                                                          hairpin loop; stem loop; ss.
                                                                                                                                                                                                                                                                                                              ∪;
                                                                                                                                                                                                                                                                                     0.026;
                                                                                                                                                                                                                                                                                              DB 14;
                                                                                                                                                                                                                                                                                                               0 other;
                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            as in example 19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AAQ48915) via
                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                  RESULT 13
AAQ48921
                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                     Query Match
                       misc_binding
                                                                                                                 Synthetic
                                                                                                                                                                           16-MAR-1994
                                                                                                                                                                                           AAQ48921;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bruice T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09318052-A
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     duplex structure also can disrupt the normal function of a single stranded nucleic acid-binding protein by forming nuclease resistant mimics of the protein binding receptors. The ONs have
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A number of crosslinking methods are claimed, which are used to tix separate ON strands in duplex structures or to fix a single ON strand in a hairpin loop, seem loop, interior loop, budge or other similar higher-order structures. Fixing a strand or strands in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New covalently crosslinked oligo-nucleotide(s) duplex structures or hairpin loop, stem loop, in
                                                                                                                                                                                       modified_base
                                                                                                                                                                                                                                                                                           modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cross-linking oligonucleotide 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ48921 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 31 BP; 5 A; 9 C; 10 G; 0 T; 7 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnostic, therapeutic and prophylactic applications as well as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequences (AAQ48905-28) consist of novel crosslinked oligo-nucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bulge or other structures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WP1; 1993-303395/38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                              interior loop;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CCAGAUCUGAGCSUGGGAGCUCUCUGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 CCAGAUCUGAGCCUGGGAGCUCUCUGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cook PD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      as research agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 71; 145pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                 bulge; fixation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       oligonucleotide; hairpin loop; stem loop;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92US-0846376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93WO-US02059
                                                                                                 /mod_base= 2'-0-(S-trityl(hexyl 8-thiol)|_uridine
/note    "ref: example 4-A"
                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "crosslinked to base
                         /note-
                                                    /*tag=
                                                                                                                                                                                                             /mod_base= 2′-0-(S-trityl(hexyl-8-thiol)]_adenosine
/note= "ref: example 4-A"
                                                                                                                                                                                                                                                                     /*tag-
                                                                                                                                                         /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Manoharan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.5%;
"crosslinked to base 21 of (AAQ48921) an oxime linkage as in example 15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       crosslinked to base 23 of (AAQ48920) via an oxime linkage as in example 14 ^{\rm m}
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    Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 26.6; DB Pred. No. 0.026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     interior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              used to fix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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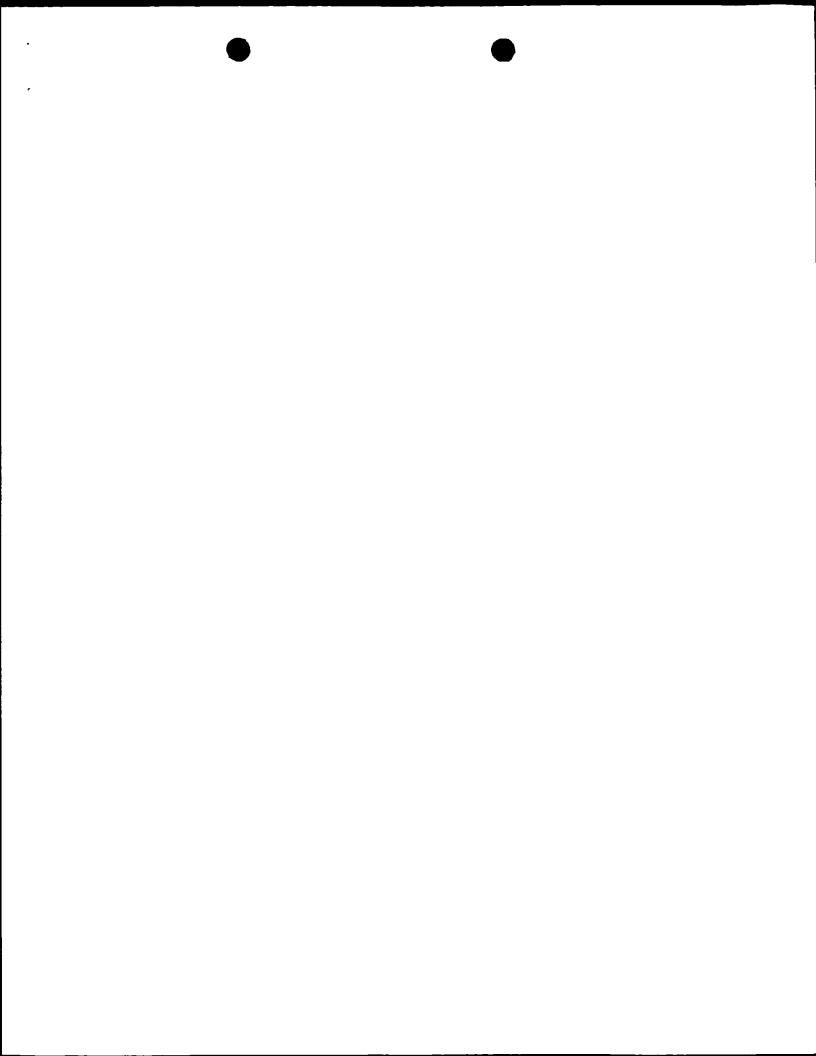
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A number of crosslinking methods are claimed, which are used to fix separate ON strands in duplex structures or to fix a single ON strand in a hairpin loop, stem loop, interior loop, bulge or other similar higher-order structures. Flxing a strand or strands in a
                                                                                                     moditied_base
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 71;
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                                                  misc_binding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          being used as research agents.
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96.3%;
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                                                                                                              "ref: example 4-A"
                     "erosslinked to base 25 of (AAQ48920) via
                                                             "ref: example
                                                                                       c
          a homobifunctional linker as in example 18"
                                                                                                                              quanosine
                                                           2'-0-[S trityl(pentan-8-thiol)]_uridine
f: example 4-A"
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                                                                                                                                                                                                                                                                       Cross-linking oligonucleotide
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           "crosslinked to base 31 of
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an acetal linkage formed between
                                               on the opposing neucleotide as
                                                                       the oxidised ring opened sugar of the
                                                          terminal neucleotide and the amine group
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Matches 26
                                                                                                                                                                                                                         Sequences (AAQ48905-28) consist of novel crosslinked oligo-nucleotides. A number of crosslinking methods are claimed, which are used to fix separate ON strands in duplex structures or to fix a single ON strand in a hairpin loop, stem lop, interior loop, bulge or other similar higher-order structures. Fixing a strand or strands in a duplex structure also can disrupt the normal function of a single stranded nucleic acid-binding proteins by torming nuclease resistant mimics of the proteins binding receptors. The ONs have diagnostic, therapeutic and prophylactic applications as well as being used as research agents.
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Copyright (c) 1993 - 2002 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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AL IGNMENTS

TOPOLOGY: US-08-243-870-20 ; Sequence 20, Application US/08243870 ; Patent No. 5527894 US-08-243-870-20 RESULT 1 GENERAL INFORMATION: TELEFAX: (303) 850-9401 INFORMATION FOR SEQ ID NO: CLASSIFICATION: 536 PRIOR APPLICATION NATA: PAPLICATION NUMBER: 07/953,694 FILING DATE: 29-SEPTEMHER:1992 APPLICATION NUMBER: 07/714,131 FILING DATE: 10-JUNE:1991 COMPUTER READABLE FORM: MEDIUM TYPE: Diskette, 5. COMPUTER: IBM compatible APPLICANT: TUERK, CRAIG TITLE OF INVENTION: LIGANDS OF HIV-1 tat PROTEIN NUMBER OF SEQUENCES: 20 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/536,428 FILING DATE: 11-JUNE-1990 ATTORNEY/AGENT INFORMATION: COMPUTER: IBM compatible OPERATING SYSTEM: MS-DOS SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA: REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: CORRESPONDENCE ADDRESS: APPLICANT: GOLD, LARRY M. SEQUENCE CHARACTERISTICS: STREET: STRANDEDNESS: single TELEPHONE: NAME: Barry J. Swanson REGISTRATION NUMBER: 33,215 FILING DATE: APPLICATION NUMBER: COUNTRY: STATE: Colorado ADDRESSEE: LENGTH: 80237 Denver nucleic acid PE: Beaton & Swanson, P.C. 4582 South Ulster Street Parkway, #403 ASU linear (303) 850-9900 Diskette, 5.25 inch, US/08/243,870 360 Kb storage

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US 07 724 500B 11
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                                                                                                                                                                                                                                                                                                                     Matches 26; Conservative 1; Mismatches 0; Indels
                                                                                                            GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                   CORRESPONDENCE ADDRESS:
                                    TITLE OF INVENTION: Reagents And Methods For Modulating Gene
TITLE OF INVENTION: Expression Through RNA Mimiery
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                ANTI SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: IS TELECOMMUNICATION INFORMATION: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US91/01822
FILING DATE: 19 MARCH 1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
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                                                                                             APPLICANT:
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FILING DATE: June 27, 1991
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 ADDRESSEE:
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ADDRESSEE: Mackiewicz & No. 5736294ris
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                             Ecker of al.
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Woodcock Washburn Kurtz Mackiewicz & No. 5874564ris LLP
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US:07 794:396-3/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Application US/07794396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Onery Match 98.5%; Score 26.6; DB 2; Length 27; Best Local Similarity 96.3%; Pred. No. 0.0075; Matches 26; Conservative 1; Mismatches 0; Indels
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APPLICANT: David
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MEDIUM TYPE: 3.5 inch.disk, 1.44 Mb
COMPUTER: IRM PC compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 16-SEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: Paul K. Legaard
REGISTRATION NUMBER: 38,534
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APPLICATION NUMBER:
                                                                                                                                                                                   CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Modulation of HIV Gene Expression
FITLE OF INVENTION: Through Interference With RNA Secondary Structure
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ATTORNEY/AGENT INFORMATION:
                                                                                                    PRIOR APPLICATION DATA:
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CITY: Philadelphia
STATE: PA
                  FILING DATE: May 4, 1990
APPLICATION NUMBER: PCT/US91/02558
FILING DATE: April 15, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/461,418B FILLING DATE: 05-JUN-1995
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                                                          APPLICATION NUMBER: FILING DATE: May 4,
                                                                                                                                                                                                  OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.0
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                                                                                                                                                                                                                                                                                                                                                                     CITY:
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ADDRESSEE: Mackiewicz & No. 684234ris
SPREET: One Liberty Place - 46th Floor
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                                                                                                                         CLASSIFICATION: 435
                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                 MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                           COUNTRY:
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                                                                                                                                                            APPLICATION NUMBER:
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215-568-3439
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US-07-794-396-3
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Patent No. 5672472
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                                                                                                             INFORMATION FOR SEQ ID NO: 20:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION DATA
APPLICATION NUMBER: US 749,000
FILING DATE: 23-AUG-1991
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-568-3100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Hanecak, Ronnie C. APPLICANT: Vickers, Timothy A. APPLICANT: Wyatt, Jaqueline
 MOLECULE TYPE:
                                                                                            SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                              NAME: Gaumond, Rebecca R.
REGISTRATION NUMBER: 35,152
REFERENCE/DOCKET NUMBER: ISIS-0678
                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                 TYPE: nucleic acid
STRANDEDNESS: single
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                    TOPOLOGY:
                                                                       LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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                                                                     29 base pairs
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                                                                                                                               215-568-3439
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Davis, Peter
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N: 435
RNA (genomic)
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US-08-357-396-20
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                                                                                                       ; MOLECULE TYPE: RNA (genomic) US-08-357-396-20
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Best Local Similarity 96.3%; Pred. No. 0.00755
                                Query Match
Best Local Similarity
Matches 26; Conserv
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                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IRM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA: NA
                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 215-568-3100 TELEFAX: 215-568-3439
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Improved Methods for Synthetic Unrandomization TITLE OF INVENTION: of Oligomer Fragments
NUMBER OF SEQUENCES: 21
                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 23-AUG-
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CTTY: Philadelphia
                                                                                                                                                                                                                                                                                               NAME: Ralph, Rebecca I.
REGISTRATION NUMBER: 35
REFERENCE/DOCKET NUMBER:
                                                                                                                                         TOPOLOGY:
                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 196,103 FILING DATE: 22-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE:
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1 CCAGAUCUGAGCSUGGGAGCUCUCUGG 27
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Lone Liberty Place - 46th Floor
                                                                                                                                                                                        29 base pairs
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Freier, Susan, M.
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Yogesh S. Sanghvi
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Vickers, Timothy A.
                                  Conservative
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Bruice, Thomas A.
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                                                96,38;
96,38;
                                                                                                                                                                                                                                                                                                                                                                                                                                       US 749,000
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                                score 26.6; DB 1
Pred. No. 0.0075;
1; Mismatches
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                                                                    DB 1; Length 29;
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RESULT 8
US 08-386-141-20
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US-07-724 500B-5
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                                                                                                                                                                                    Sequence 20, Application 08/08386141 Patent No. 5747253
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INFORMATION FOR SEQ 1D NO: 5
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                                            APPLICANT: Ecker, David J.
APPLICANT: Davis, Peter
APPLICANT: Vickers, Timothy A.
TITLE OF INVENTION: COMBINATORIAL OLIGOMER
TITLE OF INVENTION: IMMUNOABSORBANT SCREENING ASSAY FOR TRANSCRIPTION
TITLE OF INVENTION: FACTORS AND OTHER BIOMOLECULE BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: ISIS-0309
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
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APPLICATION NUMBER: PCT/US91/01822
                   CORRESPONDENCE ADDRESS:
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                                      NUMBER OF SEQUENCES:
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FILING DATE: June 27, 1991
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ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 29 base pairs
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Woodcock Washburn Kurtz Mackiewicz and
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96.3%;
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Pred. No. 0.0075;
1; Mismatches
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US-08-386-141 20
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Best Local 9
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TELEPAX: 215-568-3439
INFORMATION FOR SEQ ID NO: 7
                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch disk, 1.44 mb
COMPUTER: 1HM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TITLE OF INVENTION:
TITLE OF INVENTION:
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REFERENCE/DOCKET NUMBER: IS
TELECOMMUNICATION INFORMATION:
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                                                                                                       CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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CITY: Philadelphia
STATE: PA
                                                                      APPLICATION NUMBER: FILING DATE: 05-JUI
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CTTY: Philadelphia
                                                                                                                        SOFTWARE: WordPerfect 6.1
                                                                                                                                                                                                                                  COUNTRY:
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FILING DATE:
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DEDNESS: single
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                                                                                                                                                                                                                                                                                      9E: Woodcock Washburn Kurtz Mackiewicz & No.
One Liberty Place - 46th Floor
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                                                                      05-JUN-1995
16-SEP-1992
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                                                                                                                                                                                                                                                                                                                                                          Reagents And Methods For Modulating Gene Expression Through RNA Mimicry
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96.3%;
                    07/927,505
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GENERAL INFORMATION:
                                                Matches
                                                                               Query Match
                                                                  Best
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                                                                                                                                                                                                     TELEFAX: (215) 568-3439 INFORMATION FOR SEQ ID NO: 5
                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 497,090
FILLING DATH: March 21, 1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Paul K. Legaard
REGISTRATION NUMBER: 38,
                                                                                                                                                                                                                                  TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
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                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: One Liberty
CITY: Philadelphia
                                                                                                                                                                                                                                                                               NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,2
                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 199103: CLASSIFICATION: 435
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OPERATING SYSTEM:
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STRANDEDNESS: single
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                                                             Local
                                                                                                                                         STRANDEDNESS:
                                                                                                                                                           TYPE:
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ADDRESSEE: Mackiewicz & Norris
                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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1 CCAGAUCUGAGCSUGGGAGCUCUCUGGG 27
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                                                             similarity 96.3%;
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                                                Conservative
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96.3%;
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                                                             Score 26.6; DH 5
Pred. No. 0.0075;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA: 497,090
APPLICATION NUMBER: 497,090
FILING DATE: MARCH 21, 1990
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
22,257
                                                                                                         APPLICANT: Phillip Dan Cook, Muthiah Manoharan, APPLICANT: Bruice TITLE OF INVENTION: Covalently Cross-Linked TITLE OF INVENTION: Oligonucleotides NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ZIP: 19103
COMPUTER READABLE FORM:
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TELEPHONE: (215) 568-3439
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CITY: Philadelphia
                                                  STATE:
                                                            STREET: One Libert
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ADDRESSEE: Mackiewicz & Norris
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96.3%;
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Pred. No. 0.0075;
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Best Local Similarity 96.3%; Pred. No. 0.0075;
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INFORMATION FOR SEQ ID NO:
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INFORMATION FOR SEQ ID NO: 8
            TELEPHONE: (215) 568-3100
TELEPHONE: (215) 568-3100
TELEPAX: (215) 568-3439
                                                                                                                               APPLICATION NUMBER: PCT/US93/02059
FILING DATE: March 5, 1993
AUTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION: (215) 588-4100
                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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                                                        REFERENCE/DOCKET NUMBER: 1S
SLECOMMONICATION TO
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                                                                                                                  N>MT:
                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/205,507
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STATE: PA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPITTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5543507ris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
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N: 435
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; ANTI-SENSE:
US-08-205-507-15
                                                     US-08-295-743-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 11, Application US/08295743 Patent No. 5719271
                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 98.9
Hest Local Similarity 96.
Matches 26; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: 3.5 inch disk, 720
COMPUTER: IBM PC computible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDERIECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                            FEATURE:
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                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 215-568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Covalently Cross-Linked TITLE OF INVENTION: Oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                  OTHER INFORMATION: quanosine nucleotide having OTHER INFORMATION: a 2'-0-(octylhydrazine) group
                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                      OTHER INFORMATION: uridine nucleotide having a OTHER INFORMATION: 2'-O-(octylhydrazine) group
                                                                                                      NAME/KEY:
                                                                                                                                                                          OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 30-AUC
                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Philadelphia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz ADDRESSEE: and No. 5719271ris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                  215-568-3439
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98.5%; Score 26.6; DB 1; Length 31; 96.3%; Pred. No. 0.0075;
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    Mismatches

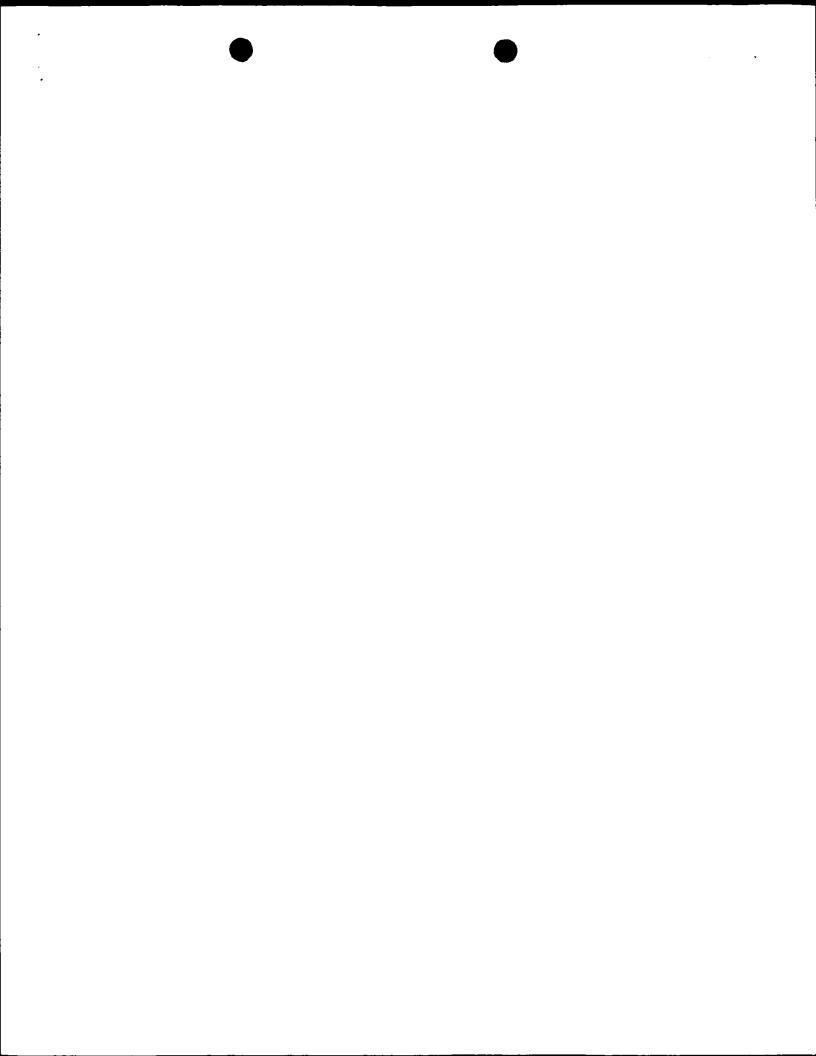
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Best Local Similarity

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Search completed: October 29, 2002, 12:22:05 Job time: 46 secs
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                                                                                                                                          Matches
                                                                                                                                                         Query Match 98.5%;
Best Local Similarity 96.3%;
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APPLICANT: ISIS P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/295
FILING DATE: 30-AUG 1994
CLASS|FICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 846,376
FILING DATE: 05-MAR-1992
ATTORNEY/AGENT INFORMATION:
NAME: JOSEPH LUCCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO: 16:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: a 2^{\prime}-O-(pentylamino) group FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch disk, 720 Kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: ISIS Pharmaceuticals, Inc.
THILE OF INVENTION: Covalently Cross-Linked
THILE OF INVENTION: Oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: IS TELECOMMUNICATION INFORMATION: 215-568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                            OTHER INFORMATION: uriding other information: 2'-0-1 other information: group
                                                                                                                                                                                                                                                                                   NAME/KEY: Modified-site LOCATION: 23
                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 31 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 33,307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: 1BM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Philadelphia
STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz
ADDRESSEE: and No. 5719271ris
STREET: One Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: Modified-site LOCATION: 12
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                                                                                                                                       Score 26.6; DB 1: Length 31; Pred. No. 0.0075; 1; Mismatches 0; Indels
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    Mismatches

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Copyright (a) 1993 - 2002 Compugen Etd.

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Title:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200
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em_estov:*
em_estov:*
em_htc:*
qb_estl:*
qb_estl:*
qb_est:*
qb_gss:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	t score	Query	Query Match Length DB	: DB	IB
	1 19.2	71.1	153	12	AZ807299
	2 18.8	69.6	93	Φ	AA508655
٠	18.8	69.6	101	9	AA508431
~	18.8	69.6	158	9	AA048127
-	5 18.8	69.6	172	9	AA591965
~	18.8	69.6	175	Q.	AA484604
- 1	7 18.8	69.6	199	9	AA651707
~	3 18.8	69.6	200	9	AA049229
0	9 18.6	68.9	178	G	AA562466
1(0 18.4	68.1	186	10	N52704
. 1.	1 18.2	67.4	165	10	BF760623
	2 18.2	67.4	170	Ç	AA526693
_	3 17.8	65.9	168	12	AZ826715
1,	4 17.2	63.7	100	9	AA508638
	5 17.2	63.7	108	9	AA494083
c = 1	6 17.2	63.7	108	ç	AA508659
c 1:	7 17.2	63.7	113	ی	AA503772

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17.2	17.2	17.2	17.2	17.2	17.2	17,2		17.2					17.2		7	17.2	7					17.2		17.2		17.2
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AA506874	AA 508007	AQ308310	AA049491	AA557430	W47961	AA508817	AA502844	AA492286	AA420638	AA557653	AA506950	AZ899416	AA797474	AA557514	AA557650	AA558956	AA572911	AA492275	AA583550	AA503569	AA503773	AA525368	AA501682	AA881408	AA492180	AA526670
AA506874 nh62h02.s		9 01841-11 01181-12 0844-1 1	AA049491 mj35c08.r		W47961 mc87d04.rl	AA508817 nh69e02	AA502844 nq63c01.s	AA492286 nq80c04	AA420638 nc61110.s	AA557653 n146b07	AA506950 nh64c08.s	AZ899416 RPC1-24-	AA797474 VW27q12.r	AA557514 n149e11.s	AA557650 n146b02	AA558956 nll0a03.s	AA572911 nm42106	AA492275 nq80b01	AA583550 ni43g07	AA503569 nq07c05	AA503773 ng07h06	AA525368 ni84e10	AA501682 ng06e03	AA881408 vx17q11	AA492180 nq78b12	AA526670 mi83h03

ALIGNMENTS

FEATURES SOUTCE		JOURNAL COMMENT	AUTHORS TITLE	VERSION KEYWORDS SOURCE ORGANISM REFERENCE	RESULT 1 AZ807299 LOCUS DEFINITION
Location/Qualifiers 1. 153 /organism="Mus musculus" /strain="C57BL/61" /db_xref="taxon:10090" /clone-"uugc2M0070K06" /clone-lib-"Mouse 10kb plasmid uugclm library"	Tel: 801 585 5606 Tel: 801 585 7177 Email: ddunn@genetics.utab.edu Insert Length: 10000 Std Error: 0.00 Plate: 0070 row: K column: 06 Seg primer: CGTTGTAAAACGACGGCCAGT Class: plasmid ends High quality sequence stop: 153.	Unpublished (2000) Contact: Robert B. Weiss University of Utah University of Utah Rm. 308, Biomedical Polymers Research Bidg., 20 S. 2030 E., St., UT	Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meencon, E., Pedersen, T., Reilly, M., Rose, M., Rose, K., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R. Mouse whole genome scaffolding with paired end reads from 10kb plasmid inserts	use. ulus ulus a; Metazoa; Eutheria; s 1 to 153)	AZ807299 153 bp DNA linear GSS 20-FEB-2001 ZM0070KO6F Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC2M0070K06 F, DNA sequence.

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102 CAGGTGTGAGGCTGTGAACTGTGTGG 127
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                                                                                                                                                                                                                                                                           Insert Langth: 197 Std Error: 0.00
Seq primer: 40ml3 twd. ET from Amersham.
                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D.
Email: equpbs-remail.nih.gov
Tissue Progrement: David G. Bostwick, M.D., Rodrigo F. Chuaqui,
M.D., Michael R. Emmert-Back, M.D., Ph.D.
cDNA Library Preparation: David B. Krizman, Ph.D.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
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                                                                                                                                                                                                                                                                                                                                                DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution intormation can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1997)
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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Insert Length: 197 - Std Error: 0.00
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWDA2 (gil4752141gblAF129072.1), a copy-number inducible derivative of plasmid RI. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             adaptored vector DNA, and transformed into chemically competent E. coli XL10 Gold (Stratagene) cells and selected for amplelllin resistance."

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/Tab_host "E. Coli strain XL10-Gold, T1-resistant, F
/hote "Vector: PWD42ny; Purified genomic DNA from M.
                                                     /tissue_type="prostate"
/lub_host-"DH10#"
                                                                                                      /sex "male"
                                                                                                                             /clone_lib "NCI_CGAP_Pr8"
                                                                                                                                                       /clone="IMAGE:957470"
                                                                                                                                                                              /db_xret-"taxon:9606"
                                                                                                                                                                                                   /ordanism "Homo sapiens"
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                            /note-"Vector: pAMP10; mRNA made from invasive prostate
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CDNA made by oligo-dT priming.
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7; Mismatches
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NO. 5.4e+02;
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Ξ Ş BASE COUNT

Best Local

hery Match

RESULT

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SOURCE KEYWORDS ACCESSION DEFINITION

ORGANISM

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AUTHORS TITLE

COMMENT

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Source

 $\ensuremath{\text{mj27d05.r1}}$ Soares mouse embryo NbMEI3.5 14.5 Mus musculus cDNA clone IMAGE:477321 5', mRNA sequence.

158 bp

III KNA

Linear

EST 09-SEP-1996

AA048127

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Query Match
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                                            3 AGAUCUGAGCSUGGGAGCUCUCUG 26
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AGATCGCAGCGAGCGAGCTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: David B. Krizman, Ph.D. cDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CCAP clone distribution information can be found through the I.M.A.G.E. Consortium/ILNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tissue Procurement: David G. Bostwick, M.D., Rodrigo F. Chuaqui, M.D., Michael R. Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Insert Length: 191 Std Error: 0.00
Seg primer: ~40ml3 fwd. EF from Amersham.
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1 (bases 1 to 101)
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a 27 c 25 a "".
                                                                                                                                                                                                  size 600 bp.
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                                                                                                                                                                                                                                                                   tumor, cDNA made by oligo-dT priming.
                                                                                                                                                                                                                                                                                                        /tissue_type "prostate"
/lab_host="DHIOB"
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/clone_lib_"NC1_CGAP_Pr8"
                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapieus"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                     /note-"Vector: pample; mRNA made from invasive prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                         /sex "male"
                                                                                                          69.6%;
66.7%;
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66.7%;
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                                                                                     5: Mismatches
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Pred. No. 6.9e+02;
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Pred. No. 6.7e+02;
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                                                                                                                                                                                                                                                                                   vi50bl1.rl Beddington mouse embryonic region Mus musculus clone IMAGE:907197.5%, mRNA sequence. AA591965
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4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus l (bases | to 158)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA048127
AA048127.1 GI:1527936
                        Mus musculus
                                               house mouse
                                                                 AA591965.1 GI:2405628
EST.
                                                                                                                                                                           AA591965
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MG1:288065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Marra M/Mouse EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             house mouse
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMAGE Consortium (info@image.llnl.gov) for further information
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T 3'), on equal amounts of mRNA from 2 13.5dpc and 2 14.5dpc embryos [total RNA provided by Minoru Ko, Wayne State Univ., from 2 ]; double-stranded cDNA was ligated to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="embryo"
/dev_stage="13.5-14.5dpc total fetus"
/lab_host-"DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /sex-"unknown"
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/strain-"C57BL/6J"
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                                                                                                                                                                                                                                                                                                                                                                                                66.7%;
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Pred. No. 7.9e+02;
5; Mismatches 3; Indels
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TITLE
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Best Local Similarity 66.7%;
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Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
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Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, Mo 63108
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The WashU-HHMI Mouse EST Project
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David E. Kleiner, M.D., Ph.D., Rodrigo F.
                                                                       Unpublished (1997)
                                                                                                                         NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                       Eukaryola; Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 175)
                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                 AA484604.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                          AA484604 175 bp mtnfil0d12.s1 NCI_CGAP_Lil Homo sapiens
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Seq primer: -28m13 revl ET from Amersham
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: mouseest@watson.wustl.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 172)
                                                                                                     Tumor Gene Index
                                                                                                                                                                                                                                                                                                                                                                           sequence.
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/dev_stage="7.5dpc"
/lab_host="DH12S"
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/db_xref-"taxon:10090"
/clone="IMAGE:907197"
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Pred. No. 8.1e+02;
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CDNA clone IMAGE:913367, mRNA
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Chuaqui, M.D., Michael R. Emmert-Buck, M.D., Ph.D.

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FEATURES
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Bost Local Similarity 66.7%;
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Insert Length: 404 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (1997)
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National Cancer Institute, Cancer Genome Anat
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                                                                                                                                                                                                                                                                                                                                                                                   High quality sequence stop: 168.
                                                                                                                                                                                                                                                                                                                                                                                                                               Seq primer: -28ml3 revl ET from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Insert Longth: 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            found through the L.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA Library Arrayed by: Greq Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCL-CCAP clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tissue Procurement: L. Jeffrey Medeiros, M.D., Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: eqapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tumor Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota;
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//lissue_type_"liver"
//lab_host_"DH108"
//lob_host_"DH108"
//lobe_"Vector: pAMP10; mRNA made from normal liver
//note-"Vector: pamP10; mRNA made fr
                                                                                                                                                                    /organism "Homo sapiens"
/db_xret "taxon:9606"
/clone "IMAGE:1087011"
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/tissue_type:"kidney tumor"
/lab_host "SOLR (kanamycin resistant)"
                                                                                          /sex "mixed"
                                                                                                                                 /clone_lib "NCI_CGAP_Kid6"
                                                                                                                                                                                                                                                                                                                                                 Location/Qualitiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dabuque,T.,
Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: -28M13 rev2 from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGI:288675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This clone is available royalty-free through LLNL; contact the IMAGE Consortium (into@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: mouseest@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4444 Forest Park Parkway, Box 8501, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WashU HHMI Mouse EST Project
Washington University School of MedicineP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Marra M/Mouse EST Project
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Mammalia; Eutheria; Rodentia; Schuroquathi; Muridae; Murinae; Mus
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cloned into the Not I and Eco RI sites of the modified
pT7T3 vector. Library went through one round of
                    M.Fatima Bonaldo.
                           normalization, and was constructed by Bento Soares and M.Fatima Bonaldo. "
                                                                                                                                                                                                                                                                                  /tissue_type:"embryo"
/dev_stage="13.5-14.5dpe total fetus"
                                                                                                                                                                                                                                                                                                                                                                   /db_xref-"taxon:10090"
/clone-"IMAGE:477931"
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Best Local Similarity 66.7%;
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                                        CCAGAUCUGAGCSUGGGAGCUCUCUGG 27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA562466 178 bp mRNA linear EST 18-AUG-19 VK98h08.rl Knowles Solter mouse blastocyst B1 Mus musculus cDNA clone IMAGE:962751 5' similar to gb:x01677 GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER (HUMAN): qb:M32599 Mouse glyceraldehyde-3-phosphate dehydrogenase mRNA, complete (MOUSE);,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (1996)
Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Marra,M., Hillier,İ., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WashU-HHMI Mouse EST Project
Washington University School of MedicineP
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Mammaila: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: mouseest@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Waterston, R.
                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 178)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                314 286 1800
314 286 1810
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                                                                                                                                                                                           38
                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                             cloned into the Notl/Sall sites of a pSPORT vector (Life Technologies). Two different size selections: B1 (large inserts) and {\it B3.} "
                                                                                                                                                                                                                                                                         /note-"Organ: embryo; Vector: pSPORT; Site_1: NotI; Site_2: Sall; Cloned unidirectionally from mRNA prepared from 800 blastocysts. Primer: Sall(dT); 5'-CGGTCGACCGTCGACCGTTTTTTTTTTTTT-3'. cDNAs were
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /oryanism-"Mus musculus"
/strain="B6D2 F1/J"
/db_xrei="taxon:10090"
/clone-"IMAGE:962751"
                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="blastocyst"
/dev_stage-"embryo (pre-implantation)"
/lab_host-"DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_lib="Knowles Solter mouse blastocyst Bl"
                                                                                                      68.9%;
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Pred. No. 8.4e+02;
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                                                                                    4; Mismatches
                                                                                                      Score 18.6;
Pred. No. 9
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JOURNAL
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Best Local Similarity
Matches 15; Conserv
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Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Kucaba, T., Le, M., Lennon, G., Marra, M., Farsons, J., Ritkin, L., Rohlling, T., Scares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and Wilson, R.
                     BF760623
                                                                     BF760623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
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                                             PM4-CT0562-261200-005-h06 CT0562 Homo sapiens cDNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: T7
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Fax: 314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteieostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                               41
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                                                                                                                                                                                                                                                                                                                                                                                             G. Becker (NINDS/NIH).
a 61 c 51 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Pharmacia). Library went through one round of normalization to a Cot - 5. Library constructed by Bento Soares and M.Patima Bonaldo. RNA from 4 multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         double-stranded cDNA was size selected, ligated to Eco RI adapters (Pharmacia), digested with Not I and cloned into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /lab_host="DH10B (ampicillin resistant)"
/note-"Vector: pT7T3D (Pharmacia) with a modified
/note-"Vector: pT7T3D (Pharmacia) with a modified
polylinker V_TYPE: phagemid; Site_1: Not 1: Site_2: Eco RI
; 1st strand cDNA was primed with a Not 1 - olido(dT)
                                                                                                                                                                                                                                                                                                                                                                                                                            lesions from one patient was kindly provided by Dr. Kevin
G. Becker (NINDS/NID) "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the Not I and Eco RI sites of a modified pT7T3 vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type "multiple sclerosis lesions"
/dev_stage:"Age 46"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="IMAGE:282402"
/clone_lib-"Soares_multiple_sclerosis_2NbHMSP"
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GI:12108523
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68.2%;
                                                                                                                                                                                                                                                                         Score 18.4; DB 10;
Pred. No. 1.2e+03;
- vismatches 2;
                                                                   165 bp
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                                                                     EST 12-JAN-2001
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Unpublished (1997)
                                                                                                                                                                                                                                                                                                 ni85hll.sl NCI_CGAP_Pr20 Homo sapiens cDNA clone IMAGE:983685,
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                                          NGI-CGAP http://www.ncbi.nlm.nih.gov/ncicqap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP).
                                                                                                                                                         Homo sapiens
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High quality sequence stop: 79.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
L. (bases 1 to 165)
                                                                                                              Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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261200-005-h066t+-2000-12-266t4-1)
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                         Tumor Gene Index
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: asimpson@ludwiq.orq.br
                                                                                         (bases 1 to 170)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA and cDNA amplification were performed under low
stringency conditions."
41 c 39 q 47 t
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/db_xref:"taxon:9606"
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Pred. No. 1.40:03;
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AZ826715
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                         JOURNAL
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Source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA Library Arrayed by: Grod Lennon, Ph.D.

DNA Sequencing by: Washind on University Genome Sequencing Center
Clone distribution: NCI CMAP clone distribution information can be
found through the L.M.A.G.E. Consortium/LLNL at:

www-bio.llnl.gov/bbrp/imaqe/imaqe.html
Insert_Length: 300 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AZB26715 168 bp DNA linear GSS 20-FEB-200
2M0102109R Mouse 10kb plasmid UUGCIM library Mus musculus genomic
clone UUGC2M0102109 R, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Emmail: cgapbs r*Mail.nih.dov
Tissue Procurement: Paul H. Duray, M.D., Rodrigo F. Chuaqui, M.D.,
Michael R. Emmert Buck, M.D., Ph.D.
CDMA Library Preparation: David B. Krizman, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Insert Length: 300 Std Error: 0.00
Seq primer: -40ml3 fwd. El trom Amersham.
                                         Class: plasmid ends
High quality sequence stop: 168
                                                                                         Plate: 0102 row: I column: 09
Seq primer: CACACAGGAAACAGCTATUACC
                                                                                                                                                                                                                                                                              University of Utah Genome Center
University of Utah
                                                                                                                                                                                                                                                                                                                              Unpublished (2000)
Contact: Robert B.
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                                                                                                                                       Email: ddunn@genetics.utah.edu
Insert Length: 10000 - Std Erro
                                                                                                                                                                                       Fax: 801 585 7177
                                                                                                                                                                                                                                   84112, USA
                                                                                                                                                                                                                                                                                                                                                                               plasmid inserts
                                                                                                                                                                                                                                                                                                                                                                                                  Mouse whole genome scattolding with paired end reads from 10kb
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             house mouse.
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lesion of the liver, cDNA made by oliqo-dT priming.
Non-directionally cloped. Size selected on agarose gel,
                                                                                                                                                                                                                                                           Biomedical Polymers Research Bldq.,
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/db_xref."taxon:9606"
/clone "IMAGE:983685"
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/lab_host "DH10B"
                                                                                                                                                                                                               585 5606
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64.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5; Mismatches
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Pred. No. 1.4e+03;
                                                                                                                                    Std Error: 0.00
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: cqapbs-r@mail.nih.gov
Tissue Procurement: David G. Bostwick, M.D., Rodrigo F. Chuaqui,
M.D., Michael R. Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: David B. Krizman, Ph.D.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: WCI-CGAP clone distribution information can be
found through the L.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA508638
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Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota: Metazoa; Chordata: Craniata: Vertebrata; Euteleostomi;
Mammalia: Eutheria: Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                                                                                                                                     Seq primer: -40m13 fwd. ET from Amersham.
                                                                                                                                                                                                                                                                                                                                                                      National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap
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a 40 c 42 g 53 t
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/note-"Vector: PWD42nv: Purified genomic DNA from M.
musculus C57HI/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
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/clone_lib-"Mouse 10kb plasmid UUGClM library"
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/strain-"C57BL/6J"
/db_xref_"taxon:10090"
/db_xref:"taxon:9606"
/clone="IMAGE:957378"
/clone_lib="NCI_CGAP_Pr8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         was blunt end-repaired with T4 DNA polymerase and T4
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                                                                                                                                                                  /organism-"Homo sapiens"
                                                                                                                                                                                                                                                                    Location/Qualifiers
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56.5%;
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Pred. No. 2e+03;
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TITLE
                                                                                             Query Match 63.7%;
Best Local Similarity 62.5%;
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Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: David B. Krizman, Ph.D. cDNA Library Arrayed by: Greq Lennon, Ph.D. DA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the L.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicqap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ng6ld10.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:939283, mRNA
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Seq primer: -40ml3 fwd.
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/tissue_type="prostate"
/tissue_type="prostate"
/lab_bost="DH10B"
/note "Vector: pAMP10; mRNA made from invasive prostate
/note record made by olico-dT priming. Non-directionall
cloned. Size-selected on agarose gel, average insert
--- con bp. "
                                                                                                                                                                              /note-"vector: pAMP10; mkNA made from liposarcoma, cDNA made by Oliqo-dT priming. Non-directionally cloned. Size-selected on agarose gel, average insert size 60% bp Reference: Krizman et al. (1996) Cancer Research 56:5380-5383."

29 g 21 t.
                                                                                                                                                                                                                                                                                                  /clone_lib="NC1_CGAP_Lip2"
/tissue_type-"liposarcoma"
/lab_host-"DH10B"
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62.5%;
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Pred. No. 3e+03;
5; Mismatches 4:
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wd. ET from Amersham.
                                                                                5; Mismatches
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